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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
COLE, LAURA C	
ART UNIT	PAPER NUMBER
1744	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,136

Applicant(s)

HILLENBRAND, STEPHEN

Examiner

Laura C. Cole

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 1-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "12" (Figures 1 and 2). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-7 are objected to because of the following informalities:

Claim 1, Line 1, the first word of a claim sentence ("clothes") should be capitalized.

Claim 1, Line 4, it is believed that "fixidly" was misspelled and should be "fixedly."

Claim 1 recites the limitation "the tip portion" in Lines 5-6. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 1744

Claim 3, Line 2, does applicant intend "chang" to be "change"?

Appropriate correction is required.

3. Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 7 does not include any structural limitations further limiting the clothes dryer lint cleaning brush of Claim 1.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 3, it is unclear as to what is meant by "semi-synthetic polyester S strand" is. Particularly, the Examiner is not familiar with the terminology "S strand". Furthermore, is there such a polyester material that would change in stiffness regardless of humidity level?

In Claim 7, it is unclear as to what is included or meant by the phrase "inexpensive to manufacture."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1744

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunjian, USPN 4,819,291 in view of Berger et al., USPN 5,560,069, in further view of Odessky et al., USPN 6,354,337, and in further view of Payne et al., USPN 6,539,574.

Gunjian discloses the claimed invention including a rigid wooden handle that is non-slip (12; Applicant's own specification on Page 7 Lines 8-9 states that a wood handle considered to be non-slip), a semi rigid shaft consisting of a pair of twisted metal wires (20; Column 2 Lines 9-13), the handle fixedly attached to one end of the wire shaft (Column 2 Lines 7-9, Lines 45-47), a plurality of cleaning bristles intertwined with the wire shaft (16), the bristles starting near the tip of the wire shaft and traversing towards the handle (Figures 1-2), and the bristles being radially disposed (see Figures). The bristles are also spaced in close proximity (see Figures). Gunjian does not disclose a length of the wire shaft, the bristles being constructed of a low durometer polyester, that the bristles traverse the shaft for approximately eleven inches, or that the bristles taper.

Art Unit: 1744

Berger et al. disclose the claimed invention including a lint brush for a dryer duct that includes a rigid handle (24), a semi-rigid shaft (22; Column 4 Lines 64-67), the handle fixedly attached to one end of the shaft (they are integral, see Figures), the shaft being approximately 24 inches long from a tip portion to the handle portion (Column 4 Lines 48-52), a plurality of lint cleaning bristles that are in close proximity (26a and 26b), the bristles are positioned longitudinally starting near a tip of a wire shaft (34; see Figures) and extend approximately eleven inches towards the handle (Column 5 Lines 34-40). Berger et al. also discloses that the bristles are between 1mm and 4.5mm (Column 5 Lines 44-48; .039 inches to .177 inches). Additionally, regarding Claim 5, the twisted wire shaft is approximately 3/16" in diameter (Column 5 Lines 12-14). Berger et al. does not disclose bristles being constructed of a low durometer polyester or that the bristles taper.

Odessky et al. disclose the claimed invention including a cleaning brush comprising a rigid handle (62), a semi rigid shaft consisting of a pair of twisted metal wires (72), the handle fixedly attached to one end of the wire shaft (Column 4 Lines 58-59), a plurality of cleaning bristles (74) intertwined with the twisted wire shaft (Column 4 Lines 64-66), the bristles are made of nylon (Column 4 Line 66), the bristles positioned longitudinally near the tip of the wire shaft traversing towards the handle (Column 4 Line 66 to Column 5 Line 3), and the bristles are radially disposed (see Figures) and taper from a smaller diameter near the tip to the opposite end closest to the handle (Column 5 Lines 7-11) in order to facilitate ease of insertion of the brush into the tube that it is

Art Unit: 1744

cleaning. Odessky et al. does not disclose bristles being constructed of low durometer polyester.

Payne et.al. discloses a deburring and cleaning device that has it's cleaning surfaces manufactured from a soft polyester (Column 4 Line 21, wherein a low durometer polyester is a soft or non-abrasive polyester since "durometer" is defined as "...degree of hardness" according to *Webster's Revised Unabridged Dictionary*, © 1996, 1998 MICRA, Inc) so that the metal surface will not be scratched or damaged (Column 4 Lines 4-10).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the device of Gunjian to have the wire shaft portion being approximately twenty four inches and the bristle portion being approximately eleven inches, as Berger et al. teach, to be appropriate lengths for cleaning the lint from dryer ducts, and modify the bristles of Gunjian to be tapering from 7/8" to 1.5", as Odessky teaches, in order to best accommodate the size of the device that requires cleaning, and modify the bristles of Gunjian to be comprised of low durometer polyester, as Payne et al. teach, so that the bristles do not damage a metal surface that is to be cleaned.

6. Claim 2 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunjian, USPN 4,819,291 in view of Berger et al., USPN 5,560,069, in further view of Odessky et al., USPN 6,354,337, and Payne et al., USPN 6,539,574 as applied to Claim 1, and further in view of Anderson, USPN 1,962,854.

Art Unit: 1744

Gunjian, Berger et al., Odessky et al., and Payne et al. disclose all elements above in paragraph 5, however do not include a low durometer plastic cap that covers the tip of the wire shaft.

Anderson discloses a brush having tapered radially disposed bristles (10) that are connected to a twisted wire shaft (11) and a protective tip (15) that is made from rubber (Page 1 Lines 74-75).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the cleaning brush of Gunjian in view of Berger et al., Odessky et al., and Payne et al. to have a protective cap, as Anderson teaches, in order to prevent damage to the device that is being cleaned and it would have been obvious for one of ordinary skill in the art to manufacture the cap from a low durometer (non-abrasive, soft) plastic since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

7. Claim 2 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunjian, USPN 4,819,291 in view of Berger et al., USPN 5,560,069, in further view of Odessky et al., USPN 6,354,337, and Payne et al., USPN 6,539,574 as applied to Claim 1, and further in view of Schwartz, USPN 1,967,597.

Gunjian, Berger et al., Odessky et al., and Payne et al. disclose all elements above in paragraph 5, however do not include a low durometer plastic cap that covers the tip of the wire shaft.

Art Unit: 1744

Schwartz discloses a brush having tapered radially disposed bristles (10 or 12) that are connected to a twisted wire shaft (11) and a protective tip (14) that is made from rubber (Page 1 Lines 54-64).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the cleaning brush of Gunjian in view of Berger et al., Odessky et al., and Payne et al. to have a protective cap, as Schwartz teaches, in order to prevent damage to the device that is being cleaned and it would have been obvious for one of ordinary skill in the art to manufacture the cap from a low durometer (non-abrasive, soft) plastic since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,823,552 and US 2005/0060824 (Application Number 10/666,103) are very similar inventions to the present application and have the same inventive entity.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

Art Unit: 1744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LCC

08 April 2005



JOHN KIM

SUPERVISORY PATENT EXAMINER